Analysis of Patient Safety Incident Reports in Physiotherapy at a Medical Center in Northern Taiwan from 2020 to 2023.

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INTRODUCTION

In Taiwan, patient safety concerns in physiotherapy were previously focused on safety guidelines and discussions on controversial cases, lacking long-term statistical data specific to physiotherapy safety.

Taiwan's medical supervision administration, the Joint Commission, actively promotes patient safety, with medical centers encouraging patient safety incident reporting. However, there hasn't been a specific discussion on physiotherapy safety. Data analysis can establish early warning systems to reduce adverse events.

AIM

This study analyzed patient safety incident data from 2020 to 2023 (Figure 1), despite the challenges posed by the COVID-19 pandemic, as a reference for future prevention.

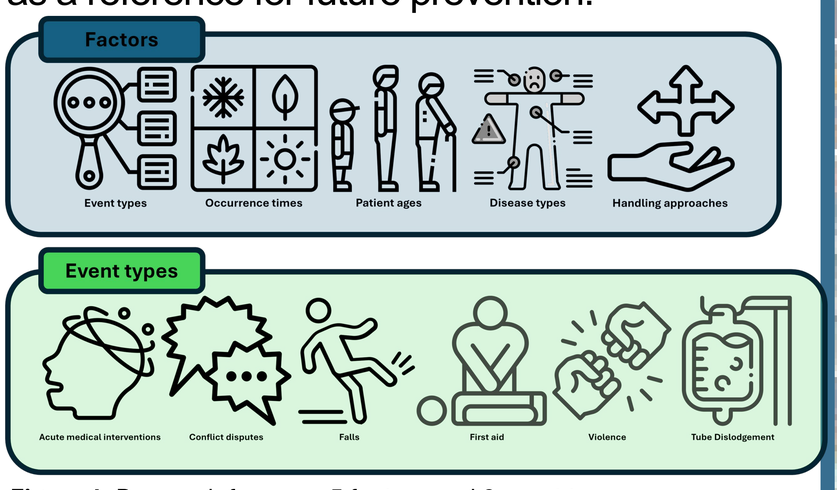

Figure 1. Research focus on 5 factors and 6 event types

RESULTS

This study compiled 94 cases of patient safety incidents reported by physiotherapists from 2020 to 2023 (Figure 2). There were no significant differences in patient age across the categories. Of the 94 cases, 22 (24%) were falls, 36 (38%) were conflict disputes, and 36 (38%) were acute medical interventions. In fall cases, patients had an average age of 63.0 years, with neurological physiotherapy being the most common (68%). Conflict dispute cases had an average age of 64.85 years, with modality treatment being the most prevalent (53%). Medical intervention cases had an average age of 65.96 years, with neurological physiotherapy predominating (47%) (Table 1 & Figure 3). Statistical findings suggest that acute medical intervention cases peak during seasonal transitions (spring: 31%, autumn: 42%), whereas falls are more common in the winter season (41%) due to Taiwan's island climate(Figure 4).

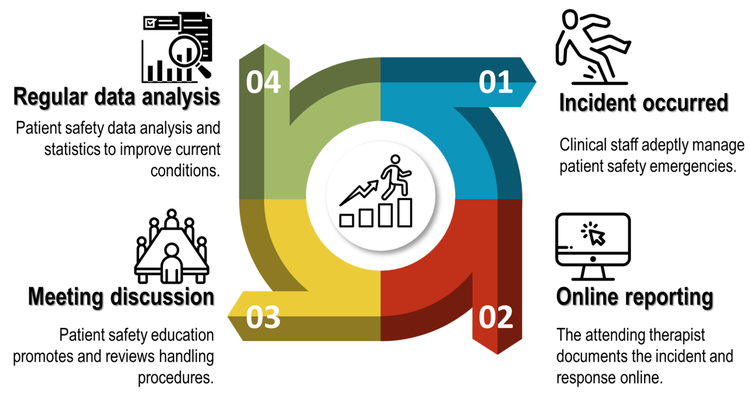

Figure 2. Patient safety incident reporting process

Table 1. Statistics of different types of events

Event Type	2020	2021	2022	2023
Acute medical interventions	15	9	3	9
Conflict disputes	14	9	4	9
Falls	5	7	4	6
First aid	0	0	0	0
Violence	0	0	0	0
Tube dislodgement	0	0	0	0
Total	34	25	11	24

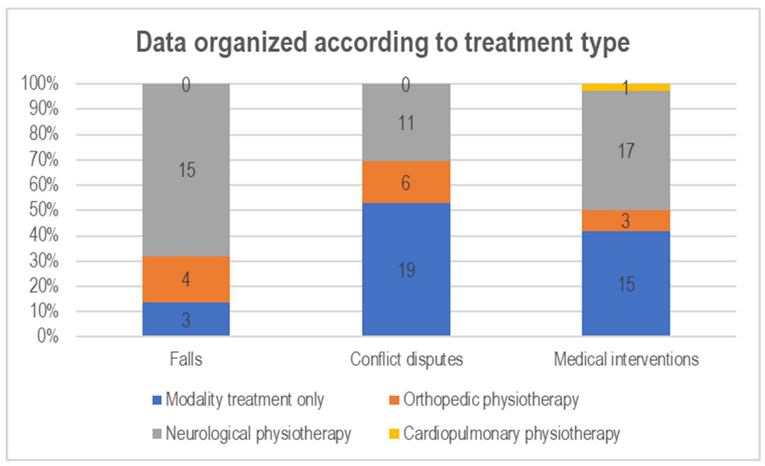

Figure 3. Patients' treatment type and event type

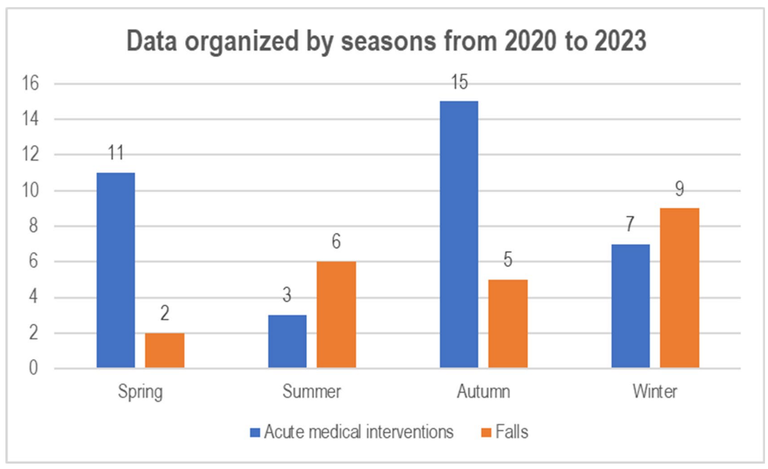

Figure 4. Data sorted by seasons

METHOD

By analyzing patient safety online reports, we gather data on event types, occurrence times, patient ages, disease types, and treatment approaches. Incidents are categorized as acute medical interventions, conflict disputes, falls, first aid, violence, and tube dislodgement. Acute medical interventions entail emergencies like unstable vital signs, sudden vomiting, dizziness, etc. Conflict disputes arise when patients disobey medical advice, question treatment or regulations, or exhibit sudden violent behavior. After consolidating the data, descriptive statistics were used to discuss the results.

CONCLUSIONS

Encouraging patient safety incident reporting is pivotal for medical centers to enhance quality. The rehabilitation department conducts monthly case advocacy sessions to minimize adverse events. This study analyzed patient safety reports from the past four years and observed no significant correlation between patient age and adverse event occurrence. However, neurological physiotherapy was prone to falls and acute medical interventions, often during patient transferring. Increased interactions with acute-phase patients elevated the risk of emergencies. In this study, we also found acute medical interventions were more likely to occur during seasonal transitions. Conversely, modality treatment often resulted in conflict disputes due to brief therapist-patient interactions, increasing the likelihood of misunderstandings. Despite this, modality treatment also saw a significant proportion of acute medical intervention incidents, necessitating careful monitoring of physiological adverse reactions.

In conclusion, consistent compilation and analysis of patient safety incident reports enable the implementation of suitable warnings in future treatment settings.

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